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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,309

12/11/2006

George Coulter Kennedy

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EXAMINER

DIAZ, THOMAS C

ART UNIT

PAPER NUMBER

3656

NOTIFICATION DATE

DELIVERY MODE

07/21/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/595,309	Applicant(s) KENNEDY ET AL.	
	Examiner THOMAS DIAZ	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/04/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "ball and socket" of claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites “each stem extends from one clamping member through an aperture in an adjacent clamping member,”. Based on the current dependency it is unclear whether the applicant intends there to be more than one clamping member. In other words there is an antecedent basis problem because applicant never set forth two clamping members in the previous claims from which claim 10 depends.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al. (USP 5904071).

Regarding claim 1, USP '071 discloses a piston rod assembly for coupling between a power end and a fluid end of a high pressure reciprocating pump, the assembly comprising one or more clamping members (fig.1, 12) arranged relative to a

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rod axis (axis that runs through rods 10 and 11) between the power end (fig.1, 10) and the fluid end (fig.1, 11), each member having a first end adapted to grip the power end component, and a second end adapted to grip the fluid end component (see fig.1), and at least one member including one or more tensioning devices (fig.1, 16 and 21), wherein said tensioning device comprises a piston (fig.1, 16 and 21)

USP '071 discloses the claimed invention except for explicitly disclosing a piston to provide a load in said tensioning device orthogonal to said rod axis and thereby secure said components against release. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have located the piston such as to provide a load in said tensioning device orthogonal to said rod axis, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 2, USP '071 discloses the clamping members are part cylindrical bodies which when arranged on the rod axis provide a substantially cylindrical body (see fig.1).

Regarding claim 3, USP '071 discloses there are two clamping members, an upper clamping member and a lower clamping member (half of clamping member that has one piston and the other that contains the other piston, 15 and 21).

Regarding claim 4, USP '071 discloses the first and second ends include a contact face (see fig.1, there exist contact faces which are parallel to the axis on the inner surface of the rods) parallel to the rod axis on an inner surface.

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Regarding claim 5, USP '071 discloses each face provides a recess (either the recess formed for 24 or the recesses for 15,20) on the inner surface in which a portion of the power end component or fluid end component is located such that the component is gripped and held when the clamping members are brought together by the tensioning device.

Regarding claim 6, each component end and the first/second end provide a knuckle joint (see fig.1, the joints are of a knuckle type joint).

Regarding claim 7, USP '071 discloses the claimed invention except for explicitly disclosing each component end and the first/second end provide a ball and socket. It would have been an obvious matter of design choice to use a ball and socket joint instead of a knuckle joint, since applicant has not disclosed that a ball and socket joint solves any stated problem or is for any particular purpose and it appears the invention would perform equally with the knuckle joint.

Regarding claim 8, each piston is slideable within an hydraulic cylinder (see fig.1, cylinder is formed by clamping members).

Regarding claim 9, each piston includes at least one stem (fig.1, stem portion which slides within 15 and 20) [adapted to receive a nut or a lock] (They are capable of receiving a nut or lock).

Regarding the functional recitation(s) in the claim(s) above denoted by the "[]" the examiner notes while features of an apparatus may be recited either structurally or functionally, claims directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. The reference discloses all the claimed structural limitations and therefore anticipates the claim. See MPEP 2114. Additionally, the apparatus is capable of performing the claimed functions.

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Regarding claim 10, each stem extends from one clamping member through an aperture in an adjacent clamping member, and wherein a nut engages the stem to couple the clamping members (the stem 18 extends from one side of the clamping member to another and connects to a nut member).

Regarding claim 11, a spring (fig.1, 23) is arranged within the hydraulic cylinder to tension the said stem.

Regarding claim 12, the assembly includes non-rotational arrangement (fig.6, 75) for preventing rotation of said stem.

Regarding claim 13, the non-rotational arrangement is a pin (fig.6, 75) locating in a matching recess arranged parallel to the stem.

Regarding claim 14, a space (fig.1, 2) is defined between a base of the cylinder (located at the port 27) and a base of the piston for accommodating hydraulic fluid.

Regarding claim 15, the assembly includes a fluid inlet port (fig.1, 27) to permit the input of hydraulic fluid to the cylinder.

Regarding claim 16, a chamber (fig.1, 2) is included in the/each member to provide a common feed for hydraulic fluid to all cylinders within the member.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS DIAZ whose telephone number is (571)270-5461. The examiner can normally be reached on Monday-Friday 8:30am to 5:00pm..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571)272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Diaz/
Examiner, Art Unit 3656

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656